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# Psychological processes connecting team identification and social well-being for middle-aged and older adults: moderated mediation of subjective and objective on-field performance

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## ABSTRACT

To cultivate the potential of sport spectatorship to enhance social well-being, a greater understanding of underlying psychological processes is essential. Using the social identity approach as a theoretical framework, we investigate how identification with a sport team interacts with subjective and objective measures of on-field team performance to affect social well-being. Data from 790 U.S. middle-aged and older adults were analysed through a path model combining mediation and moderation. The results indicate that the relationship between team identification and social life satisfaction – a measure of social well-being – is fully mediated by subjective perceptions of a favourite team’s on-field performance. In addition, this mediating effect increases as the objective on-field performance decreases. These findings reveal that team identification drives spectators to subjectively judge their favourite team’s performance, which serves as a coping strategy to enhance their social well-being when the team is performing poorly. Our evidence implies that sport organisations with middling to poor performance records may leverage social and community events to promote consumer social well-being.

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health and well-being;  
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## 1. Introduction

Sport spectatorship helps people establish meaningful social relationships (Inoue, Wann et al., 2020; Tinson et al., 2017; Wann, 2006). This implies a close connection between sport spectatorship and social well-being – a state entailing “the appraisal of one’s circumstance and functioning in society” (Keyes, 1998, p. 122). Sport managers increasingly seek to cultivate business opportunities through the promotion of consumer social well-being by creating more social spaces at sport venues (Sunnucks, 2018) and using digital technologies to facilitate social interactions among those who watch events remotely (BBC Sport, 2020). These industry trends stem from a realisation that many consumers consider spectating as a means to enrich their communal life through enhanced social relationships (Fairley & Tyler,

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2012). To retain and expand customer bases, sport managers are required to have a greater understanding of what factors determine the social well-being benefits of spectatorship (Lock & Funk, 2016).

Research exploring the social well-being benefits of spectatorship primarily focuses on two aspects of sport competitions: a favourite team's on-field performance (Van Hilvoorde et al., 2010) and consumers' team identification (Wann, 2006). First, some researchers explored the notion that spectatorship leads to social well-being based on how successful a favourite team and its athletes are on the field (Elling et al., 2014; Hallmann et al., 2013; Van Hilvoorde et al., 2010). These empirical investigations, however, have yielded inconclusive results, suggesting that social well-being benefits from on-field sporting success are transitory (Elling et al., 2014; Van Hilvoorde et al., 2010); or the positive outcomes vary across different segments of the population (Hallmann et al., 2013). In addition, on-field performance is unpredictable and beyond the control of sport managers (Smith & Stewart, 2010); hence, a sole reliance on this factor in linking spectatorship with social well-being can yield limited managerial implications.

An alternative perspective was advanced by Wann's (2006) team identification–social psychological health model, which proposes that consumers can derive social well-being benefits from spectatorship to the extent that they identify with the team. Practically, this focus on team identification is relevant, as it enables managers to implement a set of strategic actions to strengthen consumers' identification with a team (Lock et al., 2012). Empirically, earlier studies by Wann and colleagues found that team identification is positively associated with enhanced social well-being (Wann et al., 2003; Wann & Pierce, 2005). Building on this evidence, a growing body of work has emerged to provide insights into the psychological processes that connect team identification with social well-being (e.g., Inoue et al., 2015; Lianopoulos et al., 2020; Wann, Waddill et al., 2011).

Within this work, scholars have assessed how variables concerning *intragroup* relations among fans of the same team, such as the establishment of social connections (e.g., Lianopoulos et al., 2020; Wann, Waddill et al., 2011), may link team identification with social well-being. However, according to the social identity approach (SIA) to health and well-being (S. A. Haslam et al., 2009; Jetten et al., 2017), the team identification–social well-being relationship may also be influenced by variables capturing *intergroup* relations, such as the status of an individual's favourite team (i.e., win-loss records) *relative* to other teams. Relatedly, Wann (2006) contended that a comprehensive understanding of this relationship would involve exploring how team identification interrelates with fans' responses to a low group status stemming from their team's poor on-field performance. Although scholars have documented different strategies used by fans to cope with team losses and poor win-loss records (Doyle et al., 2017; Mansfield et al., 2020; Wann et al., 2008), the potential interconnection between team identification, on-field performance, and social well-being has yet to be fully understood.

To understand this interconnection, it is important to distinguish a team's *objective* on-field performance from fans' *subjective* perceptions of team performance (Wann & Dolan, 1994). That is, while win-loss records provide objective information about a team's on-field performance and its status relative to other competing teams, fans may focus on other more subjective attributes of the team – such as quality of play by individual players (Wann et al., 2006) and prospects for future team success (Doyle et al., 2017) – to perceive its performance more favourably than actual records suggest. Subjective perceptions of on-field

performance (hereafter also called “*subjective on-field performance*”) may, in turn, enable consumers to cope with a threat created by their favourite team’s poor objective performance, contributing to maintaining their well-being (Jetten et al., 2017; Wann, 2006).

Given the above rationale, and based on the SIA to health and well-being (S. A. Haslam et al., 2009; Jetten et al., 2017), the current research seeks to investigate how team identification interacts with both subjective and objective on-field performance in affecting social well-being. We address this problem by collecting and analysing data from middle-aged and older U.S. adults for two reasons. First, industry data indicate that sport fans in the United States are ageing and the median age of television viewers for all 24 sports examined was above the mid-30s (Lombardo & Broughton, 2017). This ageing trend is notable for team sport entities, such as Major League Baseball (median age in 2016 = 57 years), the Women’s National Basketball Association (55 years), college football (52 years), the National Football League (50 years), and National Hockey League (49 years; Lombardo & Broughton, 2017). Second, despite the ageing of sport fans, except for two studies (Inoue, Wann et al., 2020; Wann, Rogers et al., 2011), most research examined the relationship between team identification and social well-being by analysing data from student samples (e.g., Wann et al., 2003; Wann & Pierce, 2005; Wann, Waddill et al., 2015, 2011) or consumers with a range of age groups (e.g., Inoue et al., 2015; Lianopoulos et al., 2020). As there is evidence to suggest that middle-aged and older adults consume spectator sport differently from their younger peers (Lock et al., 2009; Van Driel & Gantz, 2019), it is essential to explicitly examine how team identification contributes to the social well-being of middle-aged and older adults, who constitute primary customer segments for many sport organisations (Lombardo & Broughton, 2017).

## 2. The social identity approach to health and well-being

The SIA posits that a person’s self-concept consists of personal and social identities (Abrams & Hogg, 1990). Personal identities are distinguishing and idiosyncratic tastes, interests and attitudes of individuals, while social identities derive from the groups people belong to as evaluated in relation to out-groups (Turner & Brown, 1978). Given the multifaceted nature of an individual’s self-concept, the core proposition of the SIA is that, beyond personal identity, there is a need to maintain or enhance social identity through membership in desirable social groups (Tajfel & Turner, 1979). The groups a person identifies with are important statements of self that influence psychological states and shape behaviour in a manner consistent with group norms and expectations (S. A. Haslam et al., 2009).

Drawing from this core proposition, the SIA to health and well-being (C. Haslam et al., 2018; S. A. Haslam et al., 2009; Jetten et al., 2017) outlines the conditions under which group memberships contribute to physical, psychological, and social well-being. While this approach builds on previous empirical work identifying groups as an important setting for determining people’s health (Kawachi et al., 1999), it does not suggest that all group memberships contribute to health and well-being to the same degree. Instead, a group membership is expected to affect health and well-being to the extent that a person identifies with the group (Jetten et al., 2017). Group identification occurs when individuals attach value and emotional significance to their membership of a group (Tajfel, 1982). In turn, group identification increases access to psychological resources (e.g., social support,

connectedness, self-efficacy, meaning) from other group members that are essential for maintaining and enhancing well-being (C. Haslam et al., 2018).

Moreover, the influence of group identification on health and well-being depends on “the status of a person’s ingroup vis-à-vis other groups” (Jetten et al., 2017, p. 793). Compared to lower-status groups (e.g., stigmatised minority groups), members of higher-status groups (e.g., majority groups) are more likely to derive a positive social identity. A social identity that is evaluated positively can enhance an individual’s sense of personal status and self-worth, amplifying the health benefits of group membership (Jetten et al., 2017). Notably, social identity scholars have recognised spectator sport as an illustrative context for the effects of group status because on-field performance can objectively distinguish high-status groups (teams with superior performance) from low-status groups (teams with poor performance) (Jetten et al., 2017).

In sum, the SIA suggests that group membership affects an individual’s health and well-being to the extent that (a) the group constitutes an important part of a person’s self-concept and (b) the group’s status is evaluated positively relative to other groups (S. A. Haslam et al., 2009; Jetten et al., 2017). In the next section, we apply these theoretical underpinnings to explain how team identification is associated with the social well-being of middle-aged and older adults.

### 3. Hypothesis development

Drawing from the SIA to health and well-being (S. A. Haslam et al., 2009; Jetten et al., 2017) and the findings of recent studies exploring fans’ coping strategies (Doyle et al., 2017; Mansfield et al., 2020), we develop and test a conceptual research model (see Figure 1) that illustrates psychological processes linking team identification and social life satisfaction (i.e., a social well-being measure) for middle-aged and older adults. First, team identification is hypothesised to have a direct association, as well as an indirect association through subjective on-field performance, with social life satisfaction. Second, objective on-field performance is proposed to positively moderate the relationship between team identification and social life satisfaction and negatively moderate the effect of team identification on subjective on-field performance. The latter moderation effect is further hypothesised to produce a negative moderated mediation relationship among team identification, subjective and objective on-field performance, and social life satisfaction. Additionally, the model encompasses several individual-level and county-level control variables to consider individual differences in social life satisfaction based on personal (e.g., gender, age, income) and community (e.g., crime rate, unemployment rate, natural amenities) characteristics. The hypothesised relationships are explained in detail below.

#### 3.1. Social life satisfaction

Social life satisfaction refers to individuals’ subjective assessment of how content they are with the social conditions of their lives (Eckersley, 2000; Vemuri & Costanza, 2006). Social life satisfaction differs from personal life satisfaction in one crucial way. Personal life satisfaction addresses how satisfied people are with their own lives (Diener et al., 1985), whereas social life satisfaction deals with communal lives beyond the “personal and intimate aspects of life” (Vemuri & Costanza, 2006, p. 122). A focus on the perceived

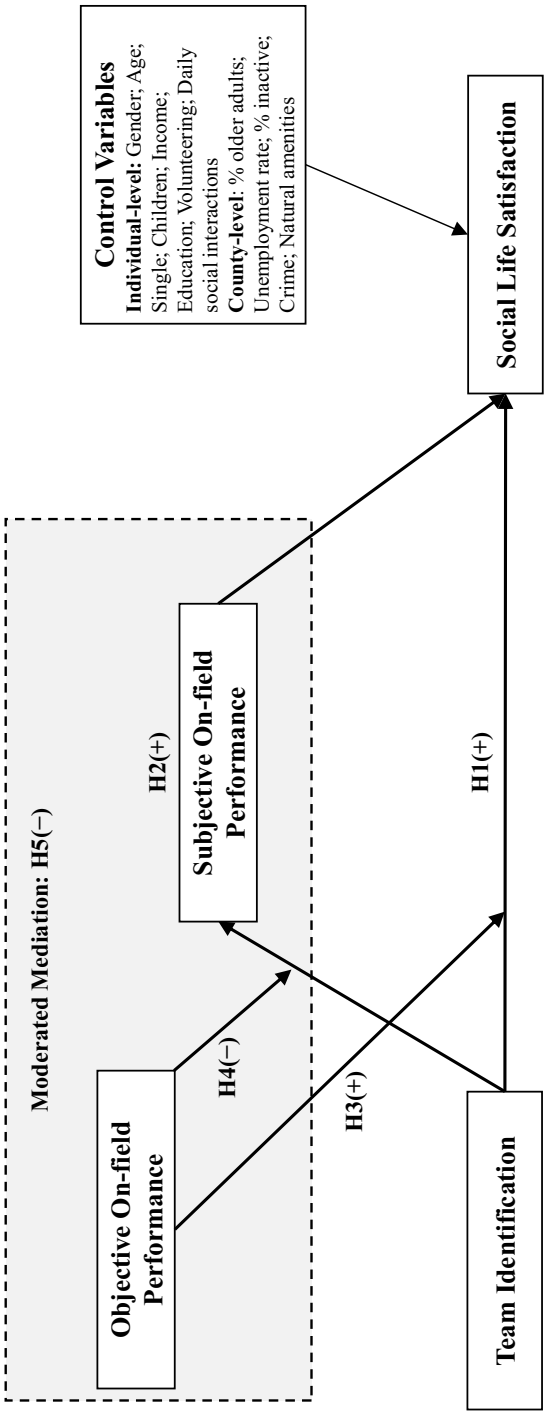


Figure 1. Conceptual research model. H = Hypothesis.

quality of a person's communal life makes social life satisfaction a desirable measure of social well-being (Vemuri & Costanza, 2006). The examination of this construct has been recommended for both national well-being surveys (Eckersley, 2000) and studies examining the social well-being of sport consumers (Mahan et al., 2015; Wann & Pierce, 2005). In addition, Wann (2006) equates social psychological health with social well-being, and his empirical studies of the team identification–social psychological health model have operationalised social well-being using a scale of social life satisfaction (Wann & Pierce, 2005; Wann, Waddill et al., 2011). In this research, therefore, we focused on social life satisfaction in assessing how team identification is associated with the social well-being of middle-aged and older adults.

### **3.2. Team identification and social life satisfaction**

The team identification–social psychological health model (Wann, 2006) provides two theoretical propositions to explain the relationship between team identification and social life satisfaction. First, as a group-level concept, team identification is expected to have a stronger association with measures of social well-being (i.e., well-being at a group level) – such as social life satisfaction – than with measures of personal (i.e., physical and psychological) well-being. This proposition is supported by prior social identity work (Branscombe et al., 1999) and offers a rationale for our focus on social well-being over personal well-being. Second, team identification allows people to establish enduring social connections through daily interactions (e.g., casual conversations with friends and other fans at games, restaurants or bars). In turn, perceptions of such connections make one's social life more fulfilling, leading to an elevated level of social life satisfaction and other social well-being measures (Wann, 2006). This second proposition is consistent with the perspective of the SIA to health and well-being highlighting that social connectedness is a central psychological resource that transmits the effect of group identification to well-being (C. Haslam et al., 2018). In support of this proposition, Lianopoulos et al.'s (2020) analysis of survey data from Greek sport fans demonstrated that team identification positively influenced fan perceptions of collective self-esteem (their study's measure of social well-being) directly as well as indirectly through an enhanced sense of social connections.

With respect to social life satisfaction, empirical studies of U.S. high school and college students found that it positively correlates with team identification (Wann, Brasher et al., 2015; Wann, Waddill et al., 2015, 2011), supporting the prediction based on the team identification–social psychological health model. However, to date, researchers have not confirmed whether the association between team identification and social life satisfaction is similar for middle-aged and older adults. There is still empirical evidence demonstrating that team identification predicts middle-aged and older adults' social well-being as assessed by other measures, such as enhanced collective esteem and reduced loneliness (Wann, Rogers et al., 2011). Consequently, we propose that middle-aged and older adults' identification with sport teams has a positive association with their social life satisfaction.

**Hypothesis 1:** Team identification will be positively associated with social life satisfaction for middle-aged and older adults.



### 3.3. Mediating effect of subjective on-field performance

The SIA to health and well-being proposes that a group's status plays a key role in determining individuals' psychological states (Haslam & Reicher, 2006; Jetten et al., 2017). When people identify with a high-status group (e.g., teams with superior on-field performance), they tend to derive higher self-esteem and associated well-being benefits from group identification. In contrast, identification with a low-status group (e.g., teams with poor on-field performance) can reduce an individual's sense of self-worth, which, in turn, may lower their well-being (Jetten et al., 2017; Tajfel & Turner, 1979). Although this proposition has empirical support (e.g., Fabio. et al., 2010), some researchers have shown that identification with low-status groups, such as racial minorities, has a positive association with well-being (Branscombe et al., 1999; Kellezi et al., 2009).

One potential reason for the contradictory evidence is discrepancies between objective measures of performance (e.g., win-loss record) and subjective evaluations of group status (e.g., positively assessing the status of a losing team by comparing its performance to other teams performing even more poorly). When objective performance confers low status onto a group, identified members may engage in social creativity (Jetten et al., 2017; Tajfel & Turner, 1979). Social creativity occurs when in-group members seek to maintain and enhance the distinctiveness of their group in comparison to other groups using one of three processes (Haslam & Reicher, 2006; Jetten et al., 2017). First, in-group members may switch the dimension of comparison by selectively assessing the positive attributes of their group while ignoring its negative attributes. Second, in-group members may attempt to feel superior by comparing their group with a lower-status group. Third, in-group members may subjectively inflate the status of their group by changing how they define the nature of its social identity (Jetten et al., 2017).

Social creativity is highly relevant to spectator sport, where a team's on-field performance – as indicated by win-loss records – can determine the social status of the team and its fans (Branscombe & Wann, 1991; Doyle et al., 2017; Mansfield et al., 2020). Research into social creativity links closely with work on the identity maintenance strategies used by spectators in response to objective team performance. Cialdini et al. (1976) found that people seek to increase proximity with successful teams to bask in reflected glory. The reverse is also true. Spectators of unsuccessful teams distance and cut off reflected failure (Snyder et al., 1986; Wann & Branscombe, 1990). However, because of the unpredictability of sport competitions (Smith & Stewart, 2010), there is a range of reactions to team success and failure. For example, Fisher and Wakefield (1998) compared fans of teams in the top and bottom positions of a competition to determine whether success acted as a motive for consumption in each scenario. They found that while consumers of teams at the top of the league were motivated by success, fans of poorly performing organisations were motivated by high levels of involvement with the sport played.

Therefore, while individuals, on average, associate with success and distance from failure, they may use a range of subjective responses to mitigate the effects of winning and losing (Doyle et al., 2017). Moreover, fans of poorly performing teams may possess positive subjective evaluations of their group despite the teams' poor win-loss records (Doyle et al., 2017; Mansfield et al., 2020). For example, Doyle et al. (2017) found that fans of a new Australian team maintained positive evaluations of the team because of expectations that although it was unsuccessful in the short-term, it would become

successful in the future. In relation to the first process of social creativity discussed above, this finding suggests that fans may rely on future-based positive assessment in judging their team's status if it is presently associated with an objective negative attribute, namely a current poor win-loss record (Doyle et al., 2017).

Using an experiment, Wann et al. (2006) found that study participants evaluated a player's performance as more superior when the player was described as a future member of their favourite team (i.e., in-group), as opposed to that of a rival team (i.e., out-group). In addition, consistent with the third process of social creativity, in-group favouritism was more pronounced among identified fans, compared to fans with minimal or low team identification (Wann et al., 2006). As Wann et al. examined fans of teams generally seen as successful, their evidence indicates that social creativity may also be manifested in fans' tendency to perceive the performance of a successful team and its members to be even more superior.

Collectively, drawing upon the propositions of the SIA to health and well-being (C. Haslam et al., 2018; Jetten et al., 2017), the social status of a team as indicated by its on-field performance can play a central role in fans' perceptions of self-worth. Thus, as middle-aged and older adults identify with a team more strongly, they are more likely to evaluate its performance favourably (via social creativity) to achieve positive status comparisons relative to consumers of other teams (Wann & Dolan, 1994; Wann et al., 2006). Subsequently, the enhanced subjective perceptions of team performance increase fans' social life satisfaction. This is because such favourable perceptions allow fans to evaluate the in-group positively, which contributes to their satisfaction with their social lives (Wang, 2017). Given this rationale, our next hypothesis proposes a positive mediating effect of subjective on-field performance:

**Hypothesis 2:** Subjective on-field team performance will positively mediate the association between team identification and social life satisfaction for middle-aged and older adults.

### **3.4. Moderating effect of objective on-field performance**

The above discussion emphasises the role that subjective perceptions of on-field performance may play in linking team identification with social well-being for middle-aged and older adults. However, empirical evidence indicates that objective performance – operationalised as win-loss records – may influence fans' psychological states directly (Cornil & Chandon, 2013; Knobloch-Westerwick et al., 2020), or by interacting with team identification (Jang et al., 2017, 2018). For example, happiness derived from a favourite team's win was found to be greater for individuals with high team identification than for those with low team identification, while both high- and low-identification fans indicated a similar level of happiness when their team was defeated (Jang et al., 2017, 2018).

Taken together, prior research suggests a positive interaction between team identification and objective on-field performance in affecting the social life satisfaction of middle-aged and older adults. That is, the positive direct relationship between team identification and social life satisfaction as proposed in Hypothesis 1 is likely to increase when a favourite team has superior on-field performance, compared to when it has poor on-field performance. Therefore, the next hypothesis predicts the positive moderating effect

of objective on-field performance on the relationship between team identification and social life satisfaction.

**Hypothesis 3:** The direct effect of team identification on social life satisfaction for middle-aged and older adults will be stronger as the team's objective on-field performance improves.

It is important to note that the third hypothesis does not consider the central tenet of the SIA pointing to individuals' capacity to cope with threatened group status (Haslam & Reicher, 2006; Jetten et al., 2017; Tajfel & Turner, 1979). When in-group members have a minimal or low level of group identification, the most prominent type of coping strategy is individual mobility, which refers to forgoing their group membership to avoid the psychological distress caused by low status (Haslam & Reicher, 2006). In spectator sport, this strategy is reflected in cutting off reflected failure (CORFing; Snyder et al., 1986), which is an example of individual mobility in which individuals disassociate from an unsuccessful team. However, as people strengthen their identification with a group, their motivation to remain in the group increases, making individual mobility less viable (Jetten et al., 2017). Reinforcing this point, Wann and Branscombe (1990) found that team identification negatively influenced the adoption of CORFing as a coping strategy: the likelihood of CORFing decreased as consumers developed greater identification with their favourite team.

Social identity scholars have suggested that, in situations where individual mobility is not possible due to group identification, social creativity serves as an alternative coping mechanism because it allows members to cope with stressors while maintaining their group membership (Haslam & Reicher, 2006). In line with this perspective, quantitative research indicates the increasing tendency of identified fans (compared to consumers with minimal team identification) to engage in social creativity to cope with a threat created by their team's loss (Wann et al., 2008). In addition, the findings of recent qualitative studies demonstrated that sport fans use one or more of the three social creativity processes explained earlier in the face of their team's defeat or poor win-loss records to maintain their team identification (Doyle et al., 2017; Mansfield et al., 2020). Examples include inflated evaluations of the team's future success (Doyle et al., 2017) and maintaining the distinctiveness of the team by switching the focus of evaluation to non-performance-related attributes, such as the unwavering commitment of its fan base (Mansfield et al., 2020). Moreover, in his team identification–social psychological health model, Wann (2006) proposes that such coping strategies enable fans to alleviate psychological distress from poor performance and enhance their social well-being.

By synthesising the past empirical evidence regarding fans' coping capacity (Doyle et al., 2017; Mansfield et al., 2020; Wann et al., 2008) and the SIA (Jetten et al., 2017), we expect that team identification and objective on-field performance interact negatively to influence subjective perceptions of on-field performance. Specifically, as objective on-field performance decreases, individuals with higher team identification are more likely to engage in social creativity which, in turn, leads to enhanced subjective perceptions of on-field performance. Our next hypothesis thus proposes the negative moderating effect of

objective on-field performance on the relationship between team identification and subjective on-field performance.

**Hypothesis 4:** The effect of team identification on subjective on-field team performance for middle-aged and older adults will be stronger as the team's objective on-field performance declines.

In turn, because of this hypothesised negative moderating effect of objective on-field performance, the mediating effect of subjective on-field performance between team identification and social life satisfaction is likely to be strengthened when the team's objective on-field performance is low. Consequently, we further hypothesise a negative moderated mediation (Edwards & Lambert, 2007), such that the mediating effect of subjective on-field performance between team identification and social life satisfaction will be negatively moderated by objective on-field performance. That is, subjective evaluations of group status will be more impactful in explaining the relationship between team identification and social well-being as team performance declines. Our final hypothesis is as follows:

**Hypothesis 5:** The mediating effect of subjective on-field team performance on the association between team identification and social life satisfaction for middle-aged and older adults will be stronger when the team has poor objective on-field performance than when it has superior objective performance.

## 4. Methods

### 4.1. *Participants and data collection procedure*

Study participants were recruited using the Qualtrics Online Sample (QOS), an online panel service that gives access to data from qualified respondents who meet pre-determined inclusion criteria. The QOS has advantages over other popular online recruiting services, including Mechanical Turk and Facebook, in terms of the diversity and representativeness of samples drawn from target populations (Boas et al., 2020). For this study, the following inclusion criteria were set for potential participants to be included in the study sample: (a) 35 years or older, (b) living in U.S. counties with at least one franchise in the four major U.S. professional sports leagues or collegiate athletics department in the Power Five conferences of the National Collegiate Athletic Association, (c) following a collegiate or professional sport team on a monthly basis, and (d) specifying a valid favourite team in the survey.

Regarding the first criteria, this study constituted part of a larger project (approved by the University of Minnesota's Human Subjects Committee) that aimed to understand older adults' (65 years or older) involvement with spectator sport and how their involvement compares to that of middle-aged adults (35 to 64 years old). Given the emphasis on the older adult population in the larger project, we requested the QOS to recruit a larger number of older adults (about 80% of the study sample) than middle-aged adults. Our preliminary analysis indicated that the two age groups (middle-aged vs. older adults) did

not significantly differ in any of the focal study variables ( $p > .05$ ). As a follow-up analysis, we also assessed if the age groups would moderate the hypothesised relationships specified in [Figure 1](#). As this analysis did not find significant results for the moderating effects of the age groups, we reported the results of hypothesis testing (see the Results section) without separating the two age groups.

In addition, we used the combination of the third and fourth criteria to exclude individuals who did not identify as a fan of a sport team from the study sample. This procedure is aligned with Heere and James (2007) and James et al.'s (2019) suggestion that participants be screened based on their self-identified status of being a fan of a team before assessing their team identification. Additionally, quota sampling was used to ensure that both genders would be equally represented in our sample.

An invitation email containing a link to a web-based survey was distributed to panel members selected by the QOS based on the inclusion criteria. Survey participants were asked to complete questions regarding their age and county of residence to verify their eligibility based on the first two inclusion criteria. In addition, participants indicated whether they follow a collegiate or professional sport team on a monthly basis, and they were instructed to specify their favourite sport team (only one team per participant). No constraints were imposed on teams' geographical locations when participants selected their favourite teams. All team names reported by participants were later reviewed by the research team to ensure that each participant offered a valid name for their favourite team. The data collection started in May 2017, and the survey was open for two weeks. During this period, 1031 who met the first two inclusion criteria completed the survey. Of them, 241 respondents were removed because they did not indicate following a collegiate or professional sport team on a monthly basis or provided invalid or unrecognisable names for their favourite team. This exclusion led to a final sample size of 790 (76.6% of the respondents who completed the survey).

The final sample was equally divided by gender; it had a range of ages from 35 to 94 years ( $M = 66.55$ ,  $SD = 9.58$ ); 26.6% of the sample were single; 62.7% had children; 71.8% had a four-year college or higher degree; and 57.7% had an annual household income of over US\$80,000. The large representation of upper income and highly educated individuals in our sample corresponds to the typical profile of U.S. sport fans as reported in national surveys (Gallup, 2015) and previous academic research (Inoue, Sato et al., 2017).

## 4.2. Measures

### 4.2.1. Team identification

To measure team identification, we used Bhattacharya and Elsbach's (2002) three-item adaptation of Mael and Ashforth (1992) group identification scale, using a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). Mael and Ashforth developed their scale to measure a person's identification or sense of oneness with an organisation or group (in the current study, "a sport team"). The reliability and validity of the shortened three-item scale have been established by Bhattacharya and Elsbach (2002). The three items are shown in [Table 1](#).

### 4.2.2. Subjective on-field performance

To measure subjective perceptions of a team's on-field performance, three items validated by Inoue, Funk, et al. (2017) were used. In these items, study participants were

**Table 1.** Standardised factor loadings, construct reliability coefficients, and average variance extracted for the measurement model.

Construct/Item	$\beta$	CR	AVE
<i>Team identification</i>		.84	.63
[Favourite Team's] successes are my successes.	.76		
When someone praises [Favourite Team], it feels like a personal compliment.	.91		
When someone criticises [Favourite Team], it feels like a personal insult.	.70		
<i>Subjective on-field performance</i>		.89	.72
The number of games won: poor (1)–excellent (11)	.82		
The quality of play: poor (1)–excellent (11)	.97		
The effort put in by players: poor (1)–excellent (11)	.75		
<i>Social life satisfaction</i>		.91	.78
In most ways my social life is close to my ideal.	.88		
The conditions of my social life are excellent.	.91		
I am satisfied with my social life.	.86		

Notes:  $N = 790$ ;  $\beta$  = standardised factor loading; CR = construct reliability coefficient; AVE = average variance extracted. All standardised factor loadings were significant ( $p < .01$ ). Actual team names were included for [Favourite Team] in the survey. Unless noted otherwise, items were measured on a 7-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (7).

asked to indicate how they assess their favourite team's on-field performance in terms of the number of games won, the quality of its play, and the effort put in by its players based on an 11-point Likert scale (see Table 1).

#### 4.2.3. Objective on-field performance

Following Branscombe and Wann (1991), we operationalised the team's objective on-field performance based on its winning percentage, and gathered 1-year winning percentage (i.e., winning percentage during the 2016–17 season when the survey was conducted;  $M = 59.19\%$ ,  $SD = 16.39\%$ , range: 6.25%–97.30%) for each favourite team identified by our respondents using various secondary data sources (e.g., ESPN website).

#### 4.2.4. Social life satisfaction

To measure social life satisfaction, three items (see Table 1) were adopted from Wann and Pierce's (2005) 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). This scale is a modified version of the Satisfaction With Life Scale (Diener et al., 1985) and has been shown to be reliable among different samples of sport fans (Wann & Pierce, 2005; Wann, Waddill et al., 2011).

#### 4.2.5. Control variables

We included two types of control variables to consider the potential differences in social life satisfaction due to participants' characteristics apart from their team identification. First, the following individual-level variables were measured in the survey, as previous work suggests that each is a significant correlate of well-being (Waddell & Jacobs-Lawson, 2010): gender (1 = male, 0 = female), age (a numerical variable), single (1 = single; 0 = otherwise), with children (1 = yes; 0 = no), annual household income (an 11-point Likert scale), highest level of education (an 8-point Likert scale), volunteering (1 = regularly volunteer at a local charity or church; 0 = otherwise), and three 4-point scale items from Onyx and Bullen (2000) assessing how participants maintain daily social interactions with their family and friends.

Second, people's well-being could be influenced by the social characteristics of the community where they live (Winters & Li, 2017). We gathered data on five community

characteristics for each county where our respondents lived and included these measures as county-level control variables. For each county, the percentage of the population aged 65 years or older, the unemployment rate, the crime rate, and the percentage of physically inactive adults were obtained from the County Health Ranking database. County-level natural amenities (e.g., climate, topography variation, access to water area) were based on the natural amenities scale, which represents environmental qualities in each county and is made available by the U.S. Department of Agriculture Economic Research Service.

### 4.3. Analysis

#### 4.3.1. Measurement model

The reliability and validity of the multi-item scales for team identification, subjective on-field performance, and social life satisfaction were assessed using a confirmatory factor analysis (CFA). We employed a maximum likelihood (ML) estimation available in Mplus 7.0 to estimate the measurement model.

#### 4.3.2. Path model

The CFA was followed by the estimation of a path model combining mediation and moderation (Edwards & Lambert, 2007) via Mplus 7.0 with the ML estimator. To perform the path analysis, we used the mean composite scores of team identification, subjective on-field performance, and social life satisfaction. A path analysis, rather than latent structural equation modelling, was used to test the hypotheses because Mplus 7.0 with the ML estimator requires the estimation of interaction terms using observed variables. One potential issue for the use of a path analysis with composite variables is that it does not consider the influence of random measurement error on path coefficient estimates (Kline, 2005). However, for the current analysis, the influence of measurement error is less likely to be severe for two reasons. First, the use of composite scores could lead to a biased estimate when constructs are multi-dimensional (Little et al., 2002); hence, researchers should use composite scores only under the condition that the analysis includes unidimensional constructs (Bagozzi & Heatherton, 1994; Little et al., 2002). This condition is applicable to the current research, as we adapted all multi-item measures from validated unidimensional scales (see the Measures section). Second, as reported in the Results section, the CFA results offered strong evidence for the reliability and validity of the multi-item measures, further reducing the concern for the impact of measurement error on path coefficient estimates (Cole & Preacher, 2014; Kline, 2005).

In the path model, team identification was entered as an exogenous variable predicting social life satisfaction directly (Hypothesis 1), and indirectly through the mediation of subjective on-field performance (Hypothesis 2). In addition, a favourite team's objective on-field performance was included as another exogenous variable on which the subjective on-field performance of the team and social life satisfaction were regressed. The model also specified an interaction term (Team Identification  $\times$  Objective On-Field Performance) as a predictor of subjective on-field performance and social life satisfaction. Then, the statistical significance and direction of the path from this interaction term to (a) social life satisfaction (Hypothesis 3) and (b) subjective on-field performance (Hypothesis 4) were used to test the hypothesised moderating effects (Kenny & Judd, 1984). Additionally, direct paths from the control variables to social life satisfaction were

included to account for the potential effects of individual and county-specific characteristics discussed above.

### 4.3.3. Moderated mediation analysis

The path coefficients obtained from the above path model were used to calculate the conditional indirect effects of team identification on social life satisfaction through subjective on-field performance at high (one standard deviation above the mean) and low (one standard deviation below the mean) levels of the moderator (i.e., objective on-field performance) (Stride et al., 2015). The estimates of the two conditional indirect effects were then compared using a test of differences, which involved calculating a Z-score for the differential value between the two indirect effect estimates (Paternoster et al., 1998), to determine the moderated mediation predicted in Hypothesis 5 (Edwards & Lambert, 2007).

## 5. Results

Before estimating the measurement and path models, we examined the data distribution of the main study variables (i.e., team identification, subjective on-field performance, objective on-field performance, social life satisfaction) to ensure data normality for all variables. An examination of histograms revealed that each of these variables was normally distributed. In addition, absolute skewness and kurtosis values were all below 1.0, indicating the absence of abnormal distributions (Kim, 2013). These results alleviated the concern for the violation of the assumption of multivariate normality for CFA (Kline, 2005).

### 5.1. Measurement model

The overall fit of the measurement model was supported based on the combination of model fit indices (MacKenzie et al., 2011):  $\chi^2/df = 30.06/24 = 1.25$ , Comparative Fit Index (CFI) = .998, Standardised Root Mean Square Residual (SRMR) = .02, and Root Mean Square Error of Approximation (RMSEA) = .02. As shown in Table 1, the multi-item scales for all three constructs offered evidence of reliability and convergent validity with values exceeding the threshold of .70 for construct reliability and .50 for average variance extracted (AVE) (MacKenzie et al., 2011). Furthermore, the square root value of the AVE for each multi-item scale was greater than the correlation coefficients between any pair of constructs including objective on-field performance (see Table 2). These results provided evidence of discriminant validity (MacKenzie et al., 2011).

**Table 2.** Descriptive statistics and correlations of the constructs.

Constructs	<i>M</i>	<i>SD</i>	1	2	3	4
1. Team identification	3.74	1.44	(.80)			
2. Subjective on-field performance	7.86	1.70	.20**	(.86)		
3. Social life satisfaction	5.07	1.23	.08*	.17**	(.88)	
4. Objective on-field performance <sup>a</sup>	.59	.16	.07	.56**	.00	-

Notes: *N* = 790. Values in parentheses represent the square root of the average variance extracted. <sup>a</sup>Included as an observed variable. \*  $p < .05$ , \*\* $p < .01$ .



## 5.2. Path model

The path model fit the data well:  $\chi^2/df = 43.73/15 = 2.92$ , CFI = .94, RMSEA = .05, SRMR = .01, and the  $R$ -squared values of subjective on-field performance ( $R^2 = .34$ ,  $p < .01$ ) and social life satisfaction ( $R^2 = .21$ ,  $p < .01$ ) were statistically significant. The standardised results of the hypothesised paths are shown in Table 3. First, although team identification had a significant positive correlation with social life satisfaction in the correlational analysis ( $r = .08$ ,  $p = .045$ ; see Table 2), the path model results indicated that the direct path from team identification to social life satisfaction was nonsignificant ( $\beta = .08$ ,  $t = .68$ ,  $p = .50$ ). The result disconfirmed Hypothesis 1, indicating that team identification had no direct association with social life satisfaction.

However, team identification was positively associated with subjective on-field performance ( $\beta = .54$ ,  $t = 5.38$ ,  $p < .001$ ), which, in turn, positively predicted social life satisfaction ( $\beta = .18$ ,  $t = 4.43$ ,  $p < .001$ ). Confirming Hypothesis 2, the direct paths produced a significant, positive indirect effect of team identification on social life satisfaction through subjective on-field performance ( $\beta = .10$ ,  $t = 3.41$ ,  $p = .001$ ). In addition, a bias-corrected 95% confidence interval of this indirect effect excluded zero [.04, .16], which supports the robustness of the significant indirect effect (Zhao et al., 2010).

**Table 3.** Standardised results of the path model.

Path	$\beta$	$t$
<i>Hypothesised direct effects</i>		
Team Identification → Social Life Satisfaction ( <b>Hypothesis 1</b> )	.08	.68
Team Identification → Subjective On-field Performance	.54**	5.38
Subjective On-field Performance → Social Life Satisfaction	.18**	4.43
<i>Hypothesised indirect effects</i>		
Team Identification → Subjective On-field Performance → Social Life Satisfaction ( <b>Hypothesis 2</b> )	.10**	3.41
<i>Hypothesised moderating effects</i>		
Team Identification × Objective On-field Performance → Social Life Satisfaction ( <b>Hypothesis 3</b> )	-.09	-.64
Team Identification × Objective On-field Performance → Subjective On-field Performance ( <b>Hypothesis 4</b> )	-.52**	-4.16
<i>Effects of objective on-field performance</i>		
Objective On-field Performance → Subjective On-field Performance	.83**	11.55
Objective On-field Performance → Social Life Satisfaction	-.03	-.38
<i>Effects of individual-level control variables</i>		
Gender → Social Life Satisfaction	.05	1.34
Age → Social Life Satisfaction	.05	1.42
Single → Social Life Satisfaction	-.22**	-6.04
With Children → Social Life Satisfaction	.01	.15
Income → Social Life Satisfaction	.05	1.37
Education → Social Life Satisfaction	-.03	-.88
Volunteering → Social Life Satisfaction	.04	1.20
Daily Social Interactions (phone call) → Social Life Satisfaction	.17**	4.69
Daily Social Interactions (conversation) → Social Life Satisfaction	.06	1.71
Daily Social Interactions (lunch/dinner) → Social Life Satisfaction	.24**	6.91
<i>Effects of county-level control variables</i>		
Percentage of Older Adults → Social Life Satisfaction	-.02	-.43
Unemployment Rate → Social Life Satisfaction	.01	.31
Percentage of Inactive Adults → Social Life Satisfaction	-.04	-.94
Crime → Social Life Satisfaction	.01	.31
Natural Amenities → Social Life Satisfaction	-.04	-.86

Note  $n = 790$ .  $\beta$  = Standardised coefficients.

\*\*  $p < .01$

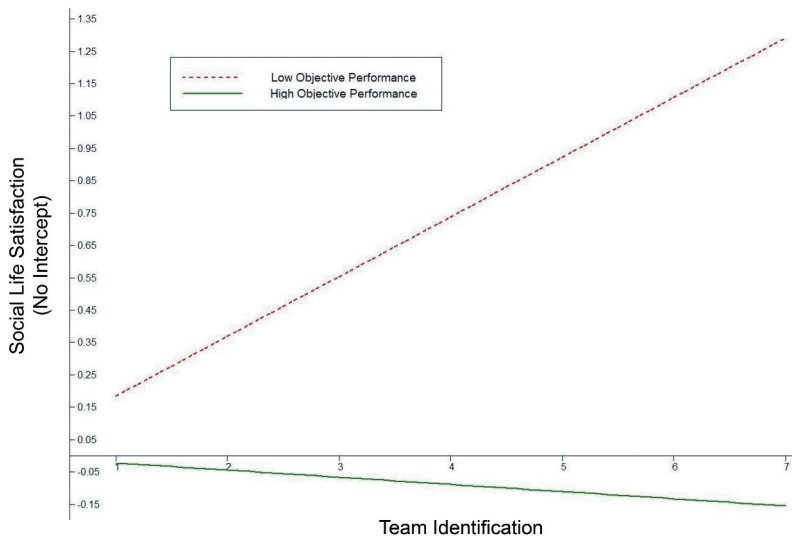
As for the moderating effects of subjective on-field performance, the path from the interaction term (Team Identification  $\times$  Objective On-Field Performance) to social life satisfaction yielded a nonsignificant coefficient ( $\beta = -.09$ ,  $t = -.64$ ,  $p = .52$ ). Hence, Hypothesis 3 was rejected, indicating that objective on-field performance did not moderate the direct relationship between team identification and social life satisfaction.

In contrast, the interaction term had a significant negative association with subjective on-field performance ( $\beta = -.52$ ,  $t = -4.16$ ,  $p < .001$ ), controlling for the main effects of team identification ( $\beta = .54$ ,  $t = 5.38$ ,  $p < .001$ ) and objective on-field performance ( $\beta = .83$ ,  $t = 11.55$ ,  $p < .001$ ). These results supported Hypothesis 4, confirming the negative moderating effect of objective on-field performance on the relationship between team identification and subjective on-field performance.

Regarding the results of other paths specified in the model, objective on-field performance positively predicted subjective perceptions of on-field team performance ( $\beta = .83$ ,  $t = 11.5$ ,  $p < .01$ ), whereas its association with social life satisfaction was nonsignificant ( $\beta = -.03$ ,  $t = -.38$ ,  $p = .70$ ). Among the individual-level control variables, being single was related to a lower level of social life satisfaction ( $\beta = -.22$ ,  $t = -6.04$ ,  $p < .01$ ), while daily interactions with family and friends through phone calls ( $\beta = .17$ ,  $t = 4.69$ ,  $p < .01$ ) and lunch/dinner ( $\beta = .24$ ,  $t = 6.91$ ,  $p < .01$ ) were positively associated with social life satisfaction. Finally, none of the county-level control variables predicted social life satisfaction.

### 5.3. Moderated mediation analysis

To test the moderated mediation predicted in Hypothesis 5, we calculated the conditional indirect effects of team identification on social life satisfaction through subjective on-field performance at low and high levels of objective on-field performance ( $M = .59$ ,  $SD = .16$ ). For this calculation, unstandardised coefficient estimates ( $B$ ) were used, as this was the only option available in Mplus 7.0 when estimating conditional indirect path coefficients. For low objective on-field performance (i.e., one standard deviation below the mean:  $.59 [M] - .16 [SD] = .43$ ), the indirect effect was positive and significant ( $B = .19$ ,  $t = 2.98$ ,  $p = .003$ ). For high objective on-field performance (i.e., one standard deviation [ $SD$ ] above the mean:  $.59 [M] + .16 [SD] = .75$ ), the indirect effect was nonsignificant ( $B = -.02$ ,  $t = -1.80$ ,  $p = .07$ ). A test of differences in the two path coefficients (Paternoster et al., 1998) revealed that the indirect effect was statistically stronger for low objective on-field performance than for high objective on-field performance ( $Z = 3.28$ ,  $p = .002$ ). As shown in the interaction plot (Figure 2), when the favourite team had low objective performance (i.e., dotted line in the plot), the indirect effect of team identification on social life satisfaction via subjective on-field performance increased as the value of team identification increased. The examination of the dotted plot line further suggests that, compared to respondents with the lowest level of team identification (1.0), those with the highest level of team identification (7.0) on average reported social life satisfaction scores that were roughly 1.2 scale point higher. In contrast, when the team had high objective performance (i.e., solid line in the plot), the indirect effect showed a slight downward trend as the value of team identification increased. These results confirmed Hypothesis 5: objective on-field performance negatively moderated the mediation of subjective on-field team performance between team identification and social life satisfaction.



**Figure 2.** A plot of the indirect effect of team identification on social life satisfaction via subjective on-field performance with objective on-field performance as the moderator variable. Values for social life satisfaction were estimated without the intercept term.

## 6. Discussion

Our correlational analysis of data from 790 middle-aged and older U.S. adults found that there was a significant positive correlation between team identification and social life satisfaction – a key indicator of social well-being (Eckersley, 2000; Vemuri & Costanza, 2006). This finding is consistent with prior work reporting that team identification positively correlates with the social life satisfaction of high school and college students (Wann, Brasher et al., 2015; Wann, Waddill et al., 2011, p. 2015). However, when we used a path analysis to assess this relationship alongside the mediation of adults' subjective perceptions of their favourite team's on-field performance, the statistical significance of the direct effect of team identification disappeared. Meanwhile, its indirect effect on social life satisfaction through subjective on-field performance was positive and significant. According to the typology of mediating effects developed by Zhao et al. (2010), these results point to an indirect-only mediation, for which the hypothesised mediator (i.e., subjective on-field performance) fully established the relationship. In addition, we found evidence for a moderated mediation relationship, such that the mediating effect of subjective on-field team performance increased as the objective performance of the team decreased.

Overall, the absence of the significant direct effect of team identification on middle-aged and older adults' social life satisfaction highlights the importance of ascertaining other factors that determine the *conditional* influence of team identification on social well-being for these adults. In this regard, our results concerning the mediating and moderated mediation effects of subjective and objective on-field performance offer the following implications.

### 6.1. Theoretical implications

Our central finding is that team identification interacts with objective and subjective measures of on-field performance in influencing the social well-being of middle-aged and older adults. This finding confirms a key proposition of the SIA to health and well-being regarding the role of group status (C. Haslam et al., 2018; Jetten et al., 2017) by demonstrating that, in spectator sport contexts, the status of a team as indicated by its objective performance (i.e., win-loss records) is consequential for individuals' social well-being when – and to the extent that – they identify with the team. Importantly, the current evidence reveals that the role of objective on-field performance cannot be attributed to its positive moderating effect on the direct relationship between team identification and social well-being (cf. Jang et al., 2017, 2018). Instead, an objective measure of on-field performance negatively moderated the effect of team identification on subjective perceptions of performance, which, in turn, positively influenced social well-being as measured by social life satisfaction. Put differently, our results demonstrate that identification with a poorly performing team has a positive association with the social life satisfaction of middle-aged and older fans through the mediation of increased subjective perceptions of the team's performance.

This finding may seem contrary to existing research highlighting the well-being benefits of identification with a high-status group (e.g., Fabio. et al., 2010). Yet the SIA demonstrates that group members use a range of responses to mitigate poor objective performance to improve evaluations of the distinctiveness of their group (e.g., a favourite team). Specifically, when the objective status of a team is challenged or reduced, it has negative consequences for the self-concept of group members (Tajfel & Turner, 1979) and their well-being (C. Haslam et al., 2018). When threatened, group members (unless deploying individual mobility and leaving the group) respond by, for example, shifting the out-group that is used for comparison (e.g., concentrating on a traditional rival performing more poorly). Engaging in such social creativity tactics improves evaluations of in-group status (as indicated by enhanced subjective team performance in the current research), which, in turn, enables group members to derive the well-being outcomes associated with group identification (C. Haslam et al., 2018; Jetten et al., 2017). These results confirm another theoretical proposition of the SIA to health and well-being: When group status is threatened under certain circumstances (e.g., poor win-loss records of a favourite team), identified members will seek to restore and maintain their well-being through the processes of social creativity (C. Haslam et al., 2018; Jetten et al., 2017). The collective evidence from this study endorses the theoretical utility of the SIA to health and well-being for understanding the psychological processes through which team identification contributes to social well-being.

The status of a group is inherently associated with individuals' evaluation of intergroup relations because people assess the relative standings of their group in comparison to other relevant groups (C. Haslam et al., 2018). Within spectator sport, group status can be clearly examined in terms of on-field performance, with win-loss records indicating a team's position in the hierarchy of competition relative to other teams in the same league or conference (Jetten et al., 2017). Therefore, our examination of subjective and objective on-field team performance as mediating and moderating variables extends existing research that predominantly focused on the quality of intragroup relations among fans

of the same team – as indicated by social connections (Lianopoulos et al., 2020; Wann, 2006; Wann, Waddill et al., 2015, 2011) or emotional support (Inoue et al., 2015; Inoue, Wann et al., 2020) – to connect team identification and social well-being. One notable exception to this intragroup focus is Lianopoulos et al.'s (2020) study of Greek sport fans. Their findings demonstrated that, along with social connections, the relationship between team identification and collective self-esteem (a social well-being measure) was mediated by fans' engagement in behaviours related to basking in reflected glory (BIRGing). BIRGing behaviour reflects an individual's tendency to promote their affiliation with the success of a team in the eyes of others (Cialdini et al., 1976; Lianopoulos et al., 2020), hence capturing fans' perceptions of the team's relative on-field performance. However, our research differs from Lianopoulos et al. in that we examined the mediating effect of fans' perceptions *in combination with* the moderating effect of objective on-field performance data collected from secondary sources. Thus, the evidence from the current research makes a distinctive contribution to the literature on the relationship between team identification and social well-being (e.g., Inoue et al., 2015; Inoue, Wann et al., 2020; Lianopoulos et al., 2020; Wann, 2006; Wann, Waddill et al., 2011) by showing that the psychological processes underlying this relationship involves not only individuals' perceptions of intragroup relations but also how they respond to objective performance data to form subjective perceptions of group status.

There is a growing body of qualitative evidence demonstrating how sport fans cope with status threats using social creativity (e.g., Delia, 2017; Doyle et al., 2017; Mansfield et al., 2020). Our results regarding the negative moderated mediation relationship involving team identification and subjective and objective on-field performance add to this prior evidence by illustrating that identified fans may subjectively judge their favourite team's performance, which serves as a coping strategy to maintain and enhance fans' social well-being in the face of poor objective performance (Doyle et al., 2017; Wann, 2006). Reinforcing this point, our follow-up examination of data distributions for subjective and objective on-field team performance revealed that the former had a more negatively skewed distribution (i.e., greater concentration of data in the upper range of the scale) than the latter (which had an almost perfect normal distribution). This observation is consistent with findings of Wann and Dolan (1994) demonstrating that when asked to state the number of games they believed their favourite team won in the past, fans tended to report better winning records for the team than its actual records. In addition, this tendency of in-group favouritism was more apparent for those with higher team identification (Wann & Dolan, 1994). Thus, the results of our study offer further support for the applicability of social creativity to spectator sport contexts, indicating that when a fan is unwilling to leave a sport team because of their team identification, that fan may engage in creative processes of social comparison (Doyle et al., 2017) or in-group favouritism (Wann & Dolan, 1994), which, in turn, can lead to positive well-being outcomes (C. Haslam et al., 2018).

Moreover, the current study sheds light on the complexity underlying the effect of team performance on social well-being among middle-aged and older adults. A prevailing belief held by policymakers and sport practitioners is that on-field success at high-level sport competitions enhances the social well-being of the public (Pawłowski et al., 2014). However, this belief is not supported by past studies (Elling et al., 2014; Van Hilvoorde et al., 2010) and is somewhat problematic because it overlooks the point that in any

competition, most teams will lose at some point and that approximately half of the teams in all leagues will have an overall losing record. The moderated mediation found in this study offers an alternative perspective, highlighting that team identification and subjective and objective measures of team performance must be considered to fully understand the influence of sporting performance on social well-being. This finding contributes new evidence to a growing body of research exploring factors that affect spectator well-being beyond winning and losing (Doyle et al., 2016; Jang et al., 2017, 2018).

## 6.2. Practical implications

Designing and implementing initiatives to enable consumers to reap the social well-being benefits of identification with teams – as well as with subgroups and relational groups formed around the teams – is an important endeavour for sport managers (Lock & Funk, 2016). Such initiatives have become even more significant since the outbreak of the COVID-19 pandemic, which has led to increased social isolation and psychological distress catalysing a global mental health crisis (Inoue, Sato et al., 2020; Kelland, 2020). Some sport organisations have proactively responded to the situation, implementing creative initiatives to promote interaction among consumers using digital technologies (BBC Sport, 2020; Pavitt, 2020) even when the pandemic limits the organisations' ability to provide normal service delivery, such as physical attendance at matches. Against this background, we offer the following main practical implication for sport organisations that endeavour to enhance the social well-being of their customers.

We have presented evidence that subjective and objective team performance mediate and moderate the effects of team identification on middle-aged and older adults' social well-being, such that the effects turn positive specifically for those adults supporting a poorly performing team. Therefore, while Fink et al. (2002) advocated for investment in building successful teams to reap the benefits of vicarious achievement, we have found that teams with poor objective performance records provide meaningful sources of group identification that influence social well-being. Therefore, while team success has been consistently associated with positive organisational outcomes (cf. Fink et al., 2002), our findings illustrate that teams with poor performance records can play an important role in enriching the social well-being of middle-aged and older spectators.

That less successful sport teams can contribute to the well-being of their spectators provides an important contrast to extant work that emphasises the benefits of success (Elling et al., 2014; Hallmann et al., 2013; Mutter & Pawlowski, 2014). Shared identity is an important resource for middle-aged and older adults to enhance social life satisfaction. Therefore, the outcomes of this study imply that sport organisations with middling to poor performance records may be able to leverage social and community events (cf. Chalip, 2006) to activate networks of social support amongst spectators (Inoue, Wann et al., 2020). While high-profile and successful clubs will always be more marketable and appealing, the nature of leagues means that more teams will have average and poor records than highly successful ones. Teams with poor performance records should, therefore, consider creating events, functions, or gatherings to celebrate shared social identity – aside from celebrations of team success – with the aim of making a positive contribution to spectators' social life satisfaction.

This finding is particularly relevant to middle-aged and older adults with lower levels of social life satisfaction who reported being single and lacking daily interactions with family and friends. In relation to this specific population of spectators, teams might consider running weeknight get-togethers in local venues or through video conferencing platforms (e.g., Zoom, Teams) to activate shared team identification and provide spectators that may suffer from social isolation or loneliness with the opportunity to form relationships with other in-group members. Targeting potentially vulnerable segments of consumers could enhance organisations' capacity to promote social well-being among their customer base, which, in turn, may serve as a motivating factor for increased consumption of the organisations' products (e.g., game attendance).

## 7. Limitations, future research, and conclusions

This study is subject to limitations that should be addressed by future research. First, the study did not distinguish between state (or temporary) and trait (or chronic) social life satisfaction although it is possible that sport spectatorship affects the two types of the social well-being measure differently (Wann, 2006). To overcome this limitation, future research is encouraged to test the proposed theoretical framework by using a multi-wave survey design that allows for assessing how the effects of team identification and on-field performance differ between state and trait social life satisfaction.

Second, while the current analysis predicted a significant proportion of the variance in social life satisfaction, a majority of variance remains unexplained. On a related point, although our selection of control variables was informed by past research examining the correlates of well-being for U.S. adults (Waddell & Jacobs-Lawson, 2010; Winters & Li, 2017), only three out of the 14 variables examined had significant results. Thus, further efforts are needed to identify other potential correlates that are specific to sport consumers, including the extent of team-related media consumption (Kim et al., 2017) and a team's off-field performance indicators such as the level of its community involvement (Inoue et al., 2015), and test how these variables may influence the relationships between team identification, on-field performance, and social life satisfaction.

Third, the inclusion of only U.S. residents in the study sample limits the generalisability of our results. Future researchers should conduct a similar investigation with middle-aged and older adults living in other countries and identify any differences that are attributed to country-specific characteristics, such as popularity of sport, access to sport venues, and availability of other public or cultural infrastructure. In addition, while our focus on middle-aged and older adults aligns with the ageing trend of sport fans (Lombardo & Broughton, 2017), researchers should investigate how the psychological processes linking team identification and social well-being found in this study may be applicable to younger fans. Such investigations have become important amid the COVID-19 pandemic given evidence indicating that it has caused the most detrimental effect on the well-being of young adults aged 18 to 24 years (Pierce et al., 2020).

Fourth, in this study, we explained the discrepancy between subjective and objective team performance based on the processes of social creativity used by sport fans (Doyle et al., 2017; Mansfield et al., 2020). However, this discrepancy may also be influenced by fans' prior expectation of how well their team would perform at competitions or during a season (Madrigal, 1995). Researchers should consider examining the potential effects of

fans' performance expectation when further assessing the moderated mediation relationship found in this study.

Fifth, the current study took a broad objective measure of a team's status relative to other teams (i.e., win-loss records). While social identity scholars support the adoption of this measure to capture a group's relative standings and hence intergroup comparisons made by its members (Jetten et al., 2017), researchers should probe into more specific measures of intergroup dynamics (e.g., head-to-head records against rival teams, an experiment assigning spectators to a win or loss condition) to expand an understanding of the roles intergroup relations play in connecting team identification with social well-being.

In conclusion, to cultivate the potential of sport spectatorship to enhance social well-being, a greater understanding of underlying psychological processes is essential. This understanding can provide valuable insights for sport managers because people consume experiential services to lead fulfilling lives (Gilovich et al., 2015) and sport organisations rely on the provision of experiential services for their revenues (Funk, 2017). The current research contributes to prior work on the social well-being benefits of sport spectatorship by offering new evidence indicating that these benefits are a product of the interactive relationships between team identification and subjective and objective on-field performance. Put differently, team identification affects social well-being based on how spectators respond to objective performance data (i.e., win-loss records) to form subjective perceptions of their team's status. It is our hope that this evidence will inspire future scholars to undertake innovative research to accumulate a body of knowledge furthering sport organisations' efforts to enrich the quality of social life for their customers.

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## Disclosure statement

No potential conflict of interest was reported by the authors.

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